Assignment day 5

Assignment 1:

Initialize a new Git repository in a directory of your choice. Add a simple text file to the repository and make the first commit.

Step 1: ---Initialize a New Git Repository

1. Open Terminal (or Command Prompt)
2. Navigate to your desired directory
3. Initialize the Git repository

   Git init

   This command creates a new subdirectory name .git that contains all of your necessary repository files. This also makes the current directory the working directory.

Step 2:---- Add a Simple Text File

1. Create a new text file: alekhya.txt

   This command creates a new file named alekhya.txt and writes "This is a alekhya text file." into it. Alternatively, you can use a text editor to create and edit the file.
2. Check the status: git status

   This command shows the status of the repository and lists alekhya.txt as an untracked file.

Step 3:---- Stage and Commit the File

1. Stage the file:

   git add . alekhya.txt This command stages alekhya.txt, preparing it for the next commit.
2. Commit the file:

   git commit -m ”new commit”

   This command commits the staged file to the repository with the message "Add simple text file as the first commit".

Assignment 2

Branch Creation and Switching

Create a new branch named 'feature' and switch to it. Make changes in the 'feature' branch and commit them.

Step 1: Create and Switch to the 'feature' Branch

1. Create a new branch named 'feature':

   git branch feature
2. Switch to the 'feature' branch:

   git checkout feature

Alternatively, you can create and switch to the new branch in one command: git checkout -b feature git checkout -b feature

Step 2: Make Changes s in the 'feature' Branch

1. Make some changes: Edit the alekhyat.txt to add some new content. You can do this using a text editor or from the command line.
   Using the command line, you can add new content like this: >> alekhyat.txt
2. Check the status:
   git status
   This command will show that alekhya.txt has been modified.

Step 3: Stage and Commit the Changes

1. Stage the modified file: Git add alekhya.txt
2. Commit the changes: Git commit –m "update alekhya.txt.in feature"

<u>Assignment 3:</u>

Feature Branches and Hotfixes

Create a 'hotfix' branch to fix an issue in the main code. Merge the 'hotfix' branch into 'main' ensuring that the issue is resolved.

Step 1: Create and Switch to the 'hotfix' Branch

1. Ensure you are on the 'main' branch:
   Git branch feature git checkout main
2. Create a new branch named 'hotfix' and switch to it:
   Git checkout feature git checkout -b hotfix

Step 2: Make and Commit the Hotfix

1. Make the necessary changes to fix the issue:
   Edit the simplefile.txt or any other file to apply the hotfix. For example:>> alekhya.txt
2. Check the status:
   git checkout –b feature
3. Stage the modified file:
   it add alekhya.txt
4. Commit the changes:
   Git commit -m

Step 3: Merge the 'hotfix' Branch into 'main'

1. Switch back to the 'main' branch:
   git checkout main
2. Merge the 'hotfix' branch into 'main':
   git merge hotfix

Step 4: Verify the Merge

1. Check the status and log to ensure the merge was successful:
   Git status
   Git log --online git status

Ensure that the commit from the 'hotfix' branch is present in the